R3G220-RD49-15

EC centrifugal fan - RadiCal

backward curved

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Nominal data

Type	**R3G220-RD49-15**	
Motor	**M3G055-CF**	
Phase		1~
Nominal voltage	VAC	115
Frequency	Hz	50/60
Type of data definition		ml
Speed (rpm)	min^{-1}	2820
Power input	W	115
Current draw	A	1.75
Min. ambient temperature	°C	-25
Max. ambient temperature	°C	50

ml = Max. load · me = Max. efficiency · fa = Running at free air · cs = Customer specs · cu = Customer unit
Subject to alterations

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Technical features

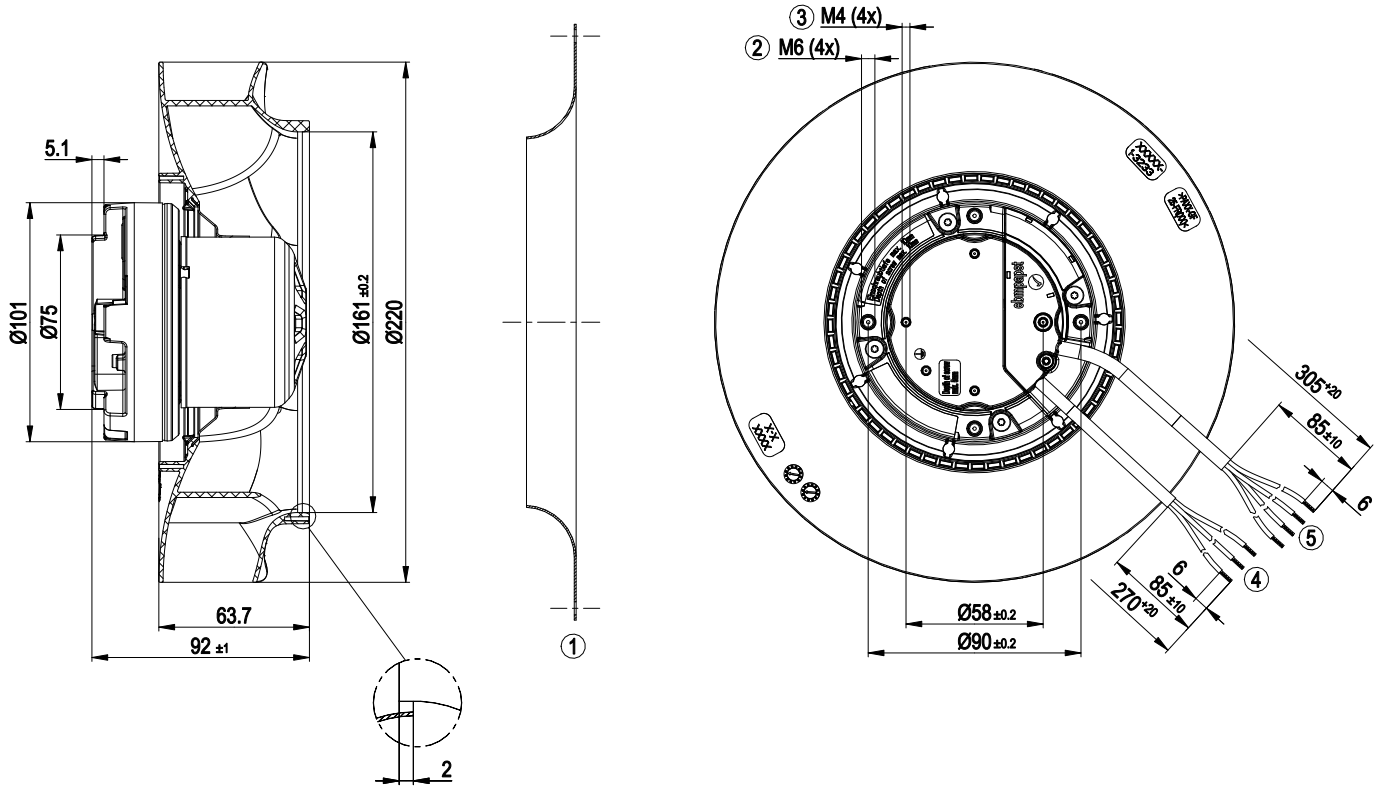
Mass	1.5 kg
Size	220 mm
Surface of rotor	Thick layer passivated
Material of impeller	PA plastic
Number of blades	7
Direction of rotation	Clockwise, seen on rotor
Type of protection	IP 54
Insulation class	"B"
Max. permissible ambient motor temp. (transp./ storage)	+ 80 °C
Min. permissible ambient motor temp. (transp./storage)	- 40 °C
Mounting position	Any
Condensate discharge holes	None, open rotor
Motor bearing	Ball bearing
Technical features	- Output 10 VDC, max. 10 mA - Output limit - Motor current limit - Soft start - Control input 0-10 VDC / PWM - Control interface with SELV potential safely disconnected from the mains - Over-temperature protected electronics / motor - Line undervoltage detection
EMC interference immunity	Acc. to EN 61000-6-2 (industrial environment)
EMC interference emission	Acc. to EN 61000-6-4 (industrial environment)
Touch current acc. IEC 60990 (measuring network Fig. 4, TN system)	<= 3.5 mA
Motor protection	Locked-rotor protection
Cable exit	Variable
Protection class	I (if protective earth is connected by customer)
Product conforming to standard	EN 60335-1; CE
Approval	UL 2111; CSA C22.2 No.77

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Product drawing



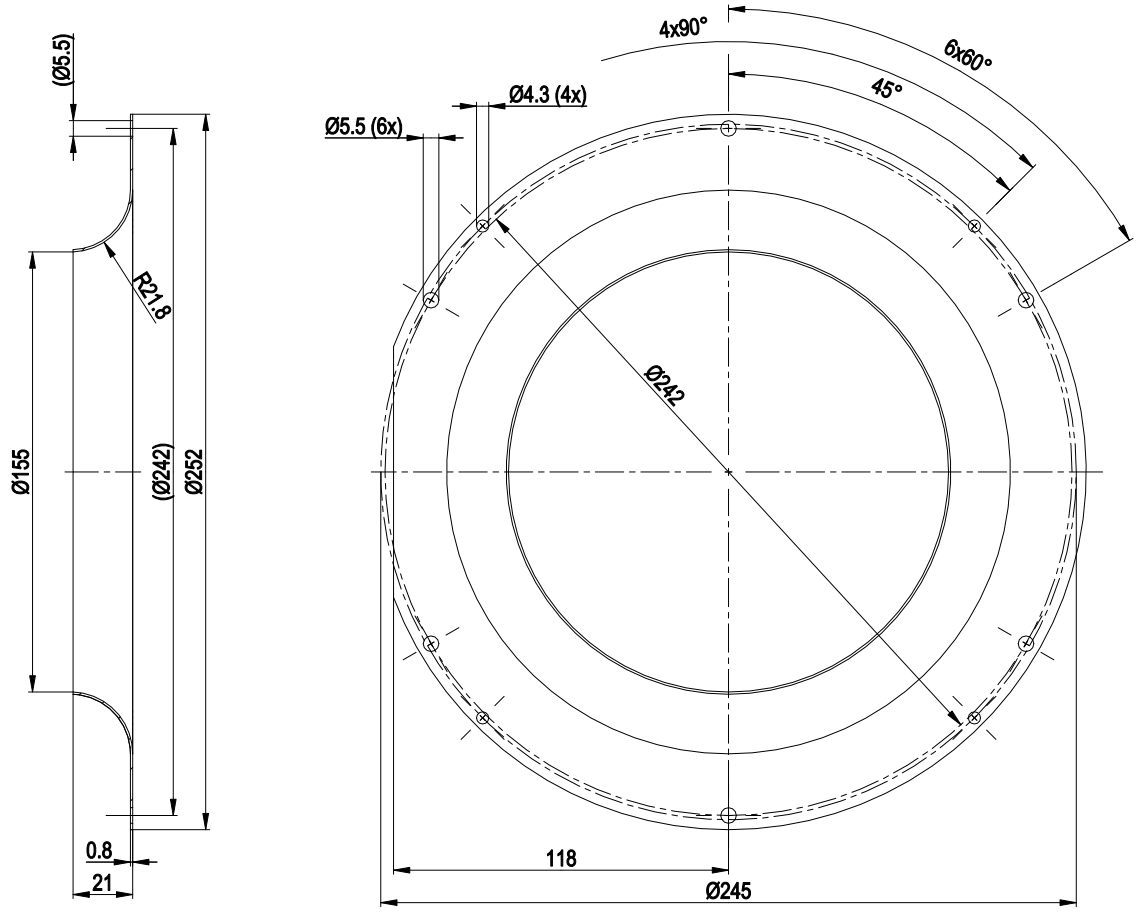
1	Accessory part: Inlet nozzle 09609-2-4013 not included in scope of delivery
2	Thread reach max. 10 mm
3	Thread reach max. 5 mm
4	Connection line PVC 3G AWG20, 3x lead tips crimped
5	Connection line PVC 4x AWG22, 4x lead tips crimped

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Accessory part

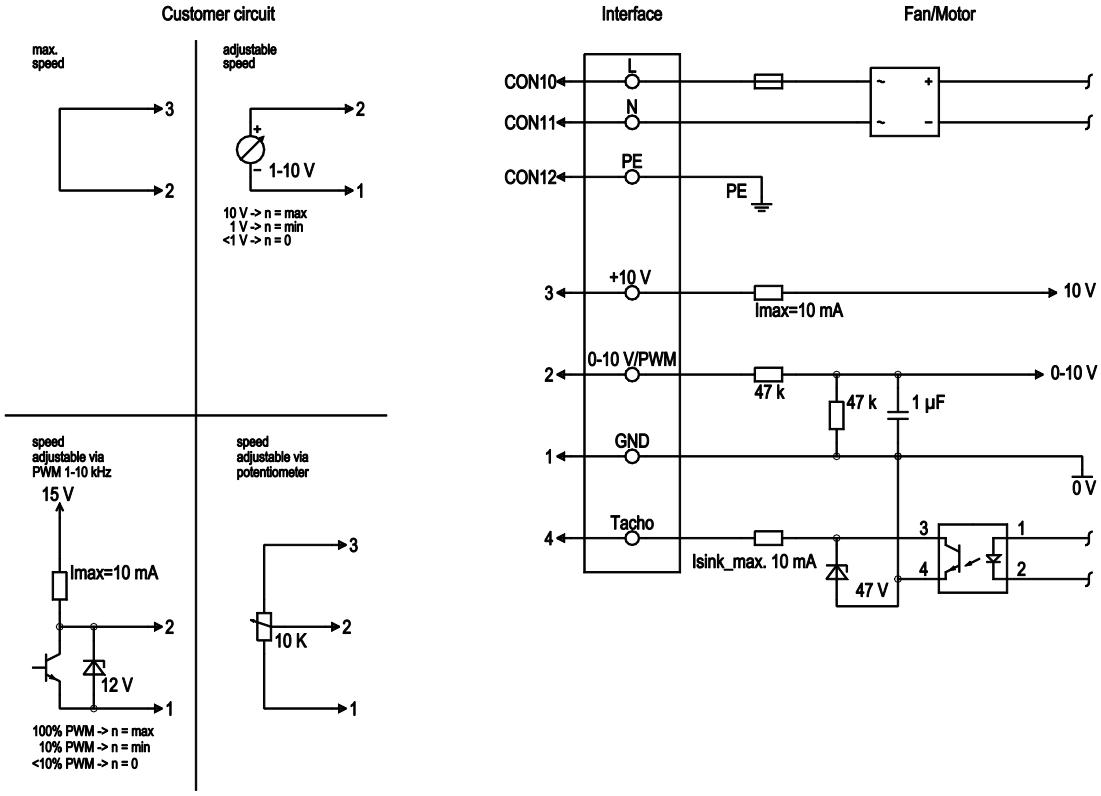


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Connection screen



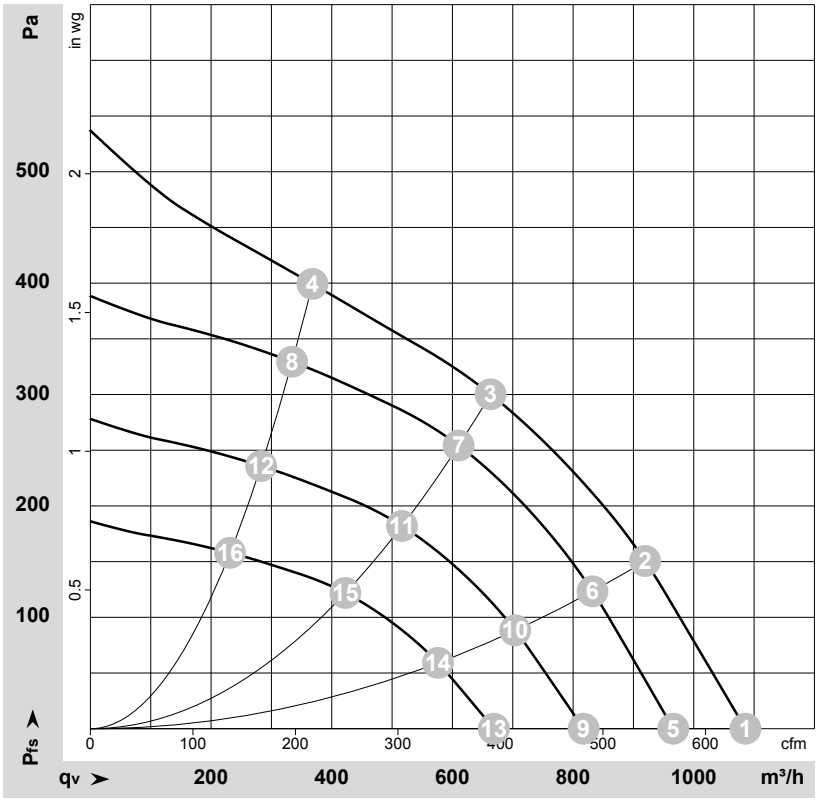
No.	Conn.	Designation	Colour	Function / assignment
	CON10	L	black	Mains connection, power supply, phase, see type plate for voltage range
	CON11	N	blue	Mains connection, power supply, neutral conductor, see type plate for voltage range
	CON12	PE	green/yellow	Earth connection
	2	0- 10V PWM	yellow	0-10 V/PWM control input, Ri=100 kΩ, SELV
	4	Tach	white	Speed monitoring output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
	3	+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. potentiometer), SELV
	1	GND	blue	Signal ground for control interface, SELV

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Charts: Air flow 50 Hz



ρ = 1.15 kg/m³ ± 2 %

Measurement: LU-175843-1

Air performance measured as per ISO 5801 Installation category A. For detailed information on the measuring set-up, please contact ebm-papst. Suction-side noise levels: LwA measured as per ISO 13347 / LpA measured with 1m distance to fan axis. The values given are valid under the measuring conditions mentioned above and may vary according to the actual installation situation. With any deviation from the standard set-up, the specific values have to be checked and reviewed with the unit installed.

Measured values

	U	f	n	P_{ed}	I	q_V	p_{fs}	q_V	p_{fs}
	V	Hz	min^{-1}	W	A	m^3/h	Pa	cfm	inH2O
1	115	50	2920	94	1.44	1085	0	640	0.00
2	115	50	2875	105	1.58	920	150	540	0.60
3	115	50	2820	115	1.75	665	300	390	1.20
4	115	50	2860	107	1.61	370	400	215	1.61
5	115	50	2600	66	1.01	965	0	570	0.00
6	115	50	2600	78	1.17	830	125	490	0.50
7	115	50	2600	90	1.34	610	254	360	1.02
8	115	50	2600	80	1.20	335	330	195	1.32
9	115	50	2200	40	0.61	815	0	480	0.00
10	115	50	2200	47	0.71	705	89	415	0.36
11	115	50	2200	54	0.81	515	182	305	0.73
12	115	50	2200	49	0.73	285	236	165	0.95
13	115	50	1800	22	0.34	670	0	395	0.00
14	115	50	1800	26	0.39	575	60	340	0.24
15	115	50	1800	30	0.44	425	122	250	0.49
16	115	50	1800	27	0.40	230	158	135	0.63

U = Supply voltage · f = Frequency · n = Speed (rpm) · P_{ed} = Power input · I = Current draw · q_V = Air flow · p_{fs} = Pressure increase

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